

Work Order ID 163416***163416***

Page 1

Tuesday, June 27, 2017 11:39:22 AM

Item ID: D4773-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Wearplate Assembly
Start Date: 7/10/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 7/17/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: DAS 21 9-89 Date: JUL 03 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4773	D								

110 Weld per dwg A/R S.S. rod Batch: 1134992 0.00***110***

Large Fab Memo 1.28
Large Fab 1- Weld D4770-047 to wearplate as per dwg D4773
2- Weld shim as per dwg
3- Transfer drill holes in bar

2 A.L 17-08-16

120 QC9- Inspect visual per QSI004- Fusion Welds 0.00

120

QC Memo 0.04
Quality Control

② 17-08-17 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐								
		OTHER :							

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Page 2

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.04							
Quality Control									
140		0.00							
140									
SprayPaint	Memo	0.20							
Spray Painting	APPLY COATING ON CONCAVE SURFACE AS PER DWG AND QSI005 (SEE NOTE 10 and 11 ON DWG)								
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo	0.04							
Quality Control									

② 17-08-17 PD

2

DAS
41
9-89
AUG 17 2017

2

DAS
38
9-89
AUG 17 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

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Page 3

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: _____	0.00							
160									
Packaging		0.02							
Packaging	Memo ***INDICATE FWD DIRECTION AS PER DWG*** LOCATION : FP002								
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.20							
Quality Control									

DAS
21
9-89

AUG 18 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

Picklist Print

Tuesday, June 27, 2017 11:39:20 AM

Page 1

Work Order ID: 163416

163416

Parent Item: D4773-041

D4773-041

Parent Item Name: Wearplate Assembly

Start Date: 7/10/2017

Required Date: 7/17/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 13.03.26 NEW ISSUE DD VERF:JLM IPP
REV:B 13.11.13 DWG REV.B DD VERF:JLM IPP REV:B
13.11.13 DWG REV.pc4 DD VERF:JLM IPP REV:C 17.04.17
AS PER DWG REV.D DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4682-9

Manufactured

No

Each

16.0000

2

D4682-9

Wearplate Shim

**

Q.L 17-08-16

Location

Loc Qty

Loc Code

WA002

16

146079

6

147710

10

D4770-047

Manufactured

No

Each

0.0000

4

D4770-047

Bar Weldment

**

Q.L 17-08-16

D4773-1

Manufactured

No

Each

5.0000

2

D4773-1

Wearplate

**

Q.L 17-08-16

Location

Loc Qty

Loc Code

WA

5

144816

1

146758

4

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



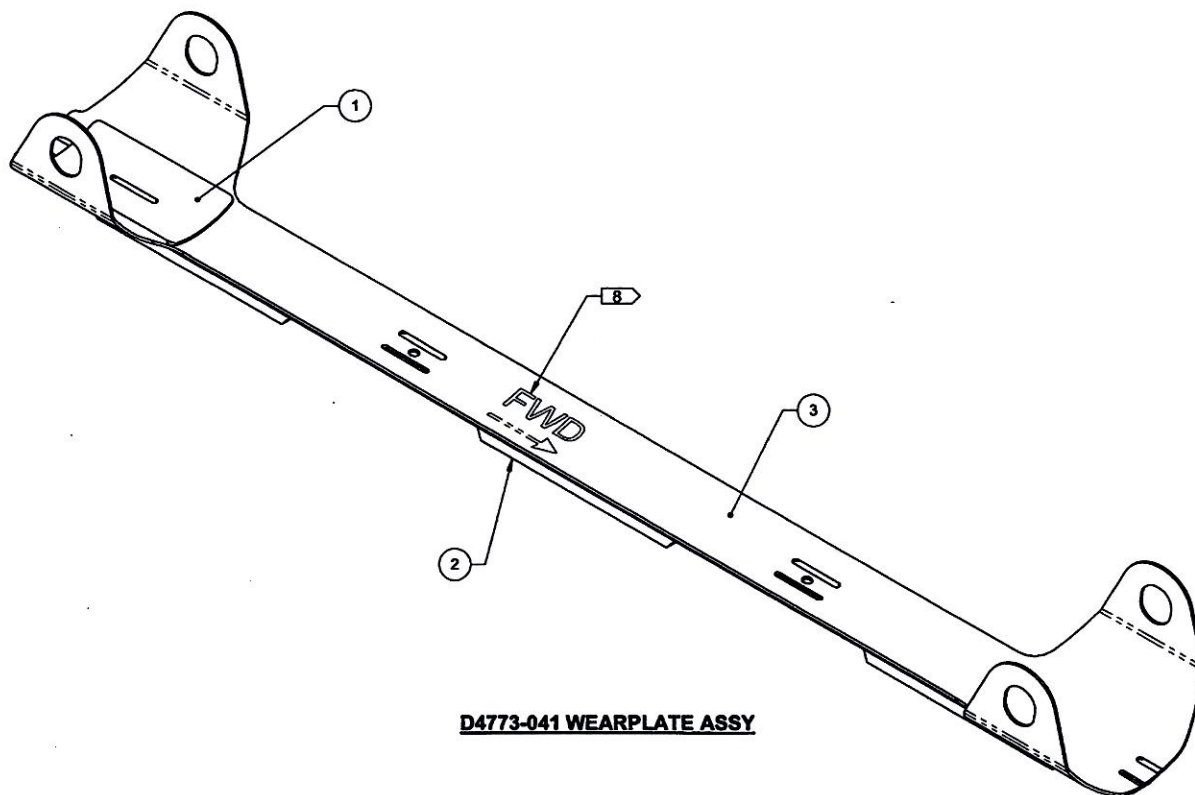
QA Closed: _____ Date: _____

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Misidentified ☐	Past Due ☐																																																																

ITEM	QTY	P/N	DESCRIPTION
	X	D4773-041	WEARPLATE ASSY
1	1	D4682-9	WEARPLATE SHIM
2	2	D4770-047	BAR WELDMENT
3	1	D4773-1	WEARPLATE

△



D4773-041 WEARPLATE ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 METHOD 6.1
- 7) WEIGHT: 3.56 lbs
- 8) INDICATE FWD DIRECTION IN LOCATION SHOWN USING WHITE PAINT MARKER

RELEASED

2017 APR 10
ECN 17-352

APPROVED

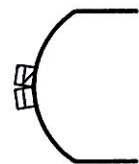
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 163416 MJS
170703

D	D4770-047 BAR WELDMENT WAS D4770-7 BAR, HARDCOAT INSTALLATION TRANSFERRED TO D4770-047 BAR WELDMENT, RELABELED VIEWS, UPDATE NOTES	DB	16.04.14
C	ADD FWD DIRECTION INDICATION, WEARPLATE FORMING METHOD MODIFIED TO ACCOMMODATE MATERIAL SPRING BACK, MINOR DIMENSIONAL CHANGES, TEXTURED COATING WAS ROCKGUARD, D4770-7 WAS D4770-1, ADD SHT 4	AP	15.04.01
B	D4682-9 WAS D4682-3. THRU HOLES NOW SLOTS. VARIOUS DIMENSIONAL CHANGES. UPDATED PART WEIGHTS	DB	13.08.08
A	NEW ISSUE	AP	13.02.13
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	SAD		
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4773	SHEET 1 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	WEARPLATE ASSY	NTS
DATE	16.04.14	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

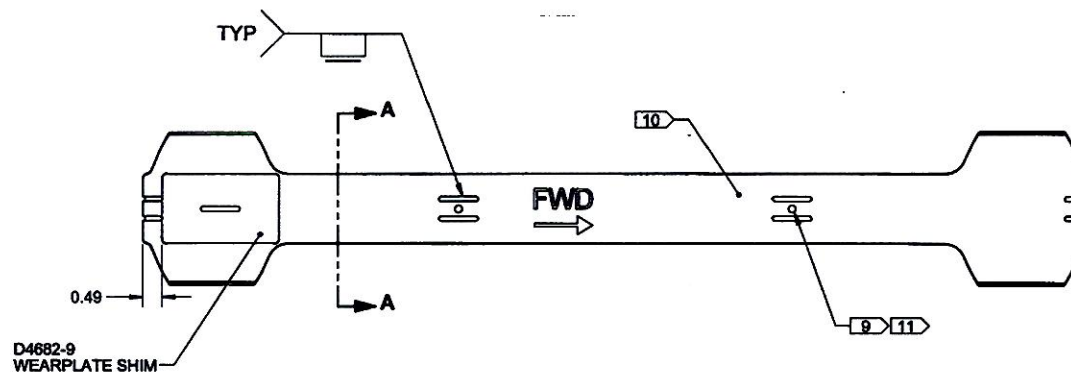
8 7 6 5 4 3 2 1

D

D



SECTION A-A



D4773-041 WEARPLATE ASSY

D4773-1 WEARPLATE

D4770-047
BAR WELDMENT
2 PL



NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 METHOD 6.1
- 7) WEIGHT: 3.56 lbs
- 8) WELDING: PER QSI 004
- 9) TRANSFER DRILL $\varnothing 0.188$ HOLE FROM D4773-1 WEARPLATE THRU D4770-047 BAR WELDMENT
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH LAYER OF TEXTURED COATING, 0.020 - 0.040 THICK, PER QSI 005 SECTION 4.9.
- 11) OPEN UP DRAIN HOLE IF NECESSARY TO $\varnothing 0.188$ AFTER APPLYING TEXTURED COATING



RELEASED

2017 APR 10

APPROVED

DESIGN	AJS	DART AEROSPACE USA, INC.	
DRAWN	SAD	EUGENE, OR	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	DD	D4773	SHEET 2 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	WEARPLATE ASSY	NTS
DATE	16.04.14	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8 7 6 5 4 3 2 1

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